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Worldwide Report

TELECOMMUNICATIONS POLICY, RESEARCH AND DEVELOPMENT

No. 183

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BRIEFS

USSR, NICARAGUA BROADCASTING AGREEMENT--Cooperation in the field of radio broadcasting between the Soviet Union and Nicaragua is envisaged by an agreement signed in Moscow today. It includes the exchange of radio material on the lives of the peoples of both countries, programs on popular art and musical recordings. The agreement was signed by the chairman of USSR State Committee for Television and Radio Broadcasting, Lapin, and the head of the propaganda department of the Sandinista National Liberation Front, (Frederico Lopez). [LD100414 Moscow Domestic Service in Russian 1300 GMT 9 Sep 81 LD]

JAPAN, UK AGREEMENT--London, Sep 4 KYODO--Japan and Britain agreed Friday to study ways to promote industrial cooperation regarding new communications technologies, such as data communications and facsimile systems. The agreement was reached when Ichiro Yamanouchi, Japanese posts and telecommunications minister, met here with British secretary of state for industry Keith Joseph to exchange views on postal and telecommunications policies of their countries. Yamanouchi and Joseph agreed that the two nations should promote such bilateral cooperation on both government and private levels. The British Government has loosened its controls on private production of all telecommunications terminal equipment except for telephones as from last July. This is expected to lead to stepped-up Japanese exports of communications equipment and investments in the British communications industry, Japanese sources said. It will also contribute to industrial cooperation between communications manufacturers of the two countries, they added. [Text] [OW050815 Tokyo KYODO in English 0208 GMT 5 Sep 81]

USSR-INDIA COMMUNICATIONS LINK--The Soviet section of a tropospheric communications line between the USSR and India has been completed. A receiving and transmitting station has been built on a mountain peak in Tadzhikistan. The line will link India not only with the USSR but also with other European countries. [LD030358 Moscow Domestic Service in Russian 1030 GMT 1 Sep 81 LD]

CSO: 5500/2304

ASEAN NEWS AGENCIES EXPAND NETWORK

BK070918 Hong Kong AFP in English 0832 GMT 7 Sep 81

[Text] Bangkok, 7 Sep (AFP)--Chief executives of the four ASEAN national news agencies began their annual meeting here today with a blast at the existing pattern of world news coverage.

In a keynote speech to the weeklong sesson, the head of Indonesia's ANTARA News Agency, General Augusta Marpaung, said the sub-region of the Association of Southeast Asian Nations (ASEAN) was not "adequately serviced by the media."

The ASEAN states--Thailand, Singapore, Malaysia, Indonesia and the Philippines--had been "reduced to a passive recipient of news and information distributed from a few developed countries," he said.

"The meeting of the ASEAN news agencies, which are linked through a computer port in the Philippines, is to discuss moves to broaden inter-regional cooperation to offset the perceived lopsided news flow.

Taking part as observers are representatives of India's PTI News Agency, with which the ASEAN network is already linked, and South Korea's YONHAP, with which a swap is planned.

The ASEAN news agencies have been working toward the creation of an ASEAN News Network (ANN) to tie together about 22 wire services from Asia and the Pacific.

The project, actively supported by the United Nations Education, Scientific and Cultural Organization (UNESCO), is expected to be launched at a Kuala Lumpur meeting in November of the existing Jakarta-based Organization of ASEAN News Agencies (OANA), which would serve as its nucleus.

The ASEAN news exchange network was launched in June 1980 by the Malaysian agency, BERNAMA, Indonesia's ANTARA and the Philippines News Agency (PNA). The Thai News Agency (TNA) joined last May after the government reduced the price of a special computerized communication tariff.

Attending the annual meeting here were BERNAMA's acting director-general, Yusof Bador; ANTARA's chief, Gen. Marpaung, PNA's managing editor-designate, Alberto Corvera; and Krolkkrai Chiraphaet, director general-designate of TNA.

The tiny island republic of Singapore, the other member of ASEAN, does not have a national news agency.

The meeting was formally opened by Thai deputy premier General Prachuap Suntharangkun, who is concurrently chairman of the board of the mass communications organization of Thailand, parent body of TNA.

CSO: 5500/2304

ASEAN NEWS AGENCIES SIGN SWAP ACCORDS WITH 'PTI,' 'YONHAP'

BK111529 Hong Kong AFP in English 0958 GMT 11 Sep 81

[Text] Bangkok, 11 Sep (AFP)--The four ASEAN national news agencies signed swap agreements with Indian and South Korean agencies today in a move toward the creation of a pan-Asian news exchange network.

At a joint press conference, top executives of the agencies of Thailand, Malaysia, Indonesia and the Philippines hailed the new linkups as a step toward correcting perceived problems in the existing pattern of global reporting.

"What we are trying to do in our own modest way is to improve from an imbalanced to a more balanced (news flow) position," said the head of Indonesia's ANTARA News Agency, August Marpaung, who spoke for his colleagues.

The agreements with the Press Trust of India (PTI) and South Korea's YONHAP News Agency marked the end of the fifth annual meeting of the wire service heads of the Association of Southeast Asian Nations (ASEAN).

The ASEAN agencies, which are tied together through a computer port in the Philippines, said in a joint statement they would encourage editors in their respective countries to boost usage of items carried by the ASEAN exchange.

Launched in June, 1980, the exchange initially brought together ANTARA, Malaysia's BERNAMA and the Philippines News Agency (PNA). The Thai News Agency (TNA) joined last May after the government reduced the price of a special satellite communications tariff.

The joint statement expressed disappointment that their respective governments had so far failed to make any further big cuts in telecommunications tariffs, despite repeated appeals by the news agencies.

Mr. Marpaung noted that rates remained generally higher in developing countries than in the West for 24-hour leased satellite links, making it cheaper to send news into the Third World than for local countries to get it out.

He called for implementation of earlier recommendations that satellite charges, notably the so-called Press Bulletin Service (PBS), be reduced to no more than $200 a month to give regional countries a fighting chance to swap news and information.

The ASEAN agencies, backed by the UN Educational, Scientific and Cultural Organization (UNESCO), is working to set up an Asian News Network (ANN) linking about 22 wire services from Asia and the Pacific.

The project is expected to be launched at a meeting in Kuala Lumpur in November of the existing Jakarta-based Organization of Asian News Agencies (OANA), which would serve as its nucleus.

The ASEAN link with India's PTI, formalized today, actually has been in operation for about 8 months through a satellite hookup from Jakarta. The tie-up with YONHAP, through a satellite to Manila, is to start functioning in about 1 week.

When ANN gets off the ground, it will tie in agencies from the Soviet Union, China, Vietnam, Japan, Iran and others in what Mr. Marpaung called a bid to complement the Western news agencies, not replace them.

The island state of Singapore, the other member of ASEAN, does not have a national news agency.

CSO: 5500/2307

BRIEFS

SRV, LAOS SIGN AGREEMENT--Hanoi VNA September 1--An agreement on postal and telecommunication cooperation for the 1981-1985 period between Vietnam and Laos has been signed in Vientiane. According to the agreement Vietnam will supply Laos with transmission equipment and expertise and will help train Lao technicians. [Text] [OW011751 Hanoi VNA in English 1717 GMT 1 Sep 81]

CSO: 5500/2304

BREAKTHROUGH COMMUNICATIONS MULTIPLEXER DEVELOPED HERE

Canberra THE AUSTRALIAN in English 10 Aug 81 p 14

[Text] ONE of the latest pieces of advanced electronic equipment to be developed locally is the state-of-the-art communications multiplexer, designed by a member of the Australian Electronics Industry Association (AEIA) on a Federal Government grant.

The equipment represents probably the most significant design and manufacture of statistical multiplexer equipment in Australia.

To date technologically advanced equipment of this nature, which allows streams of data emanating from myriad points to be conveyed down a single transmission line simultaneously, has been largely imported.

According to AEIA chairman, Mr A.T. Deegan, this local development is an important achievement for the electronics industry and highlights the technological know-how and resourcefulness of Australian manufacturers given the financial support to bring projects to completion.

The communications multiplexer was developed over three years with the support of a $150 000 grant from the Federal Government's IR and D Incentives Board.

The multiplexer has been designed to replace up to 10 leased telephone channels with a single link from one site to another at a speed up to 9600BPS.

A monitoring facility in the device polls the various channels and finds suitable space in the transmission line to push data down to the receiving end in the most efficient and economic manner.

Remote data terminals, modems or other asynchronous devices can thus share a single line with increased cost effectiveness and with no hardware or software changes needed to install the link.

"Statistical multiplexers can provide very much higher efficiency than conventional time division multiplexers," said Mr Deegan.

"At a time there is a computerisation and telecommunications explosion taking place in Australia, this is a tremendously worthwhile advance.

"Usually at least double and in some cases more than 8 times the line utilisation could be gained from a statistical multiplexer."

Mr Deegan said the development program had been pursued by the AEIA member because research had shown there was a viable market for an advanced multiplexer product provided it was technically as good as any imported equipment.

"With the assistance of an IR and D grant the product has been developed to a point where we believe it has export potential.

"Successful competition against imports must be developed by Australian manufacturers if they are to survive," Mr Deegan added.

CSO: 5500/7547

BRIEFS

COMPUTERIZED COMMUNICATIONS--A computerised communications system which can transmit the contents of the Encyclopaedia Brittanica in a second will soon link Australia with the world. The system sends information by light through tubes of optic-fibre hundreds of times faster than signals transmitted by telephone lines. The first test transmissions have already started at Sydney University on stage one of a $20,000 system, which will link most buildings on the campus with a central computer by December next year. The next step will be to link the computer with a satellite which will then connect the system to other optic computers throughout the world. The network manager at Sydney University's computing centre, Mr Brian Rowsell, predicted: "It's only a matter of a year or so and we'll also be able to plug in to virtually every overseas university building linked to a computer, via satellite." He said Sydney University's existing low-speed computer communications would be accelerated 100,000 times using the new AWA-designed optic-fibre circuitry. Yesterday's first transmissions, between the computer centre and the engineering building, used a solid-state laser to convert signals from a computer in one building into pulses of light which carried information at thousands of millions of times a second down tiny glass tubes to another terminal. [Text] [Canberra THE AUSTRALIAN in English 29 Jul 81 p 3]

NEW TV STATION--A new commercial television station for the North-West could be operating from Port Hedland by the middle of next year. A director of Calpurnicus Pty Ltd, Mr Mike Lowry, spoke to councillors at last week's meeting of the Port Hedland Shire Council about the proposed new station. Mr Lowry said that the company was preparing a draft proposal for the Minister for Communications, Mr Sinclair, outlining plans for the network. If this was successful, and licence was granted, the company planned to be transmitting by June next year. Initially the network would cover Pilbara coastal towns, including Port Hedland, Roebourne, Wickham, Karratha, and Dampier. Transmission to inland towns would be taken up later. Depending on the success of these operations, the company aimed to eventually transmit as far north as Kununurra. Broadcasting hours would be from 4.15pm to 11.15pm. Mr Lowry told the council that the first step in the project after approval would be to set up a studio in Port Hedland costing about $1.3 million and employing 15 people. A mobile production unit to provide a local news service would be part of the studio equipment. Mr Lowry estimated that the network would serve a viewing audience of between 30,000 and 40,000 people. He said that the company had an agreement with an Eastern States television station, which would provide a wide variety of high-standard programmes for the North-West channel. The council resolved to support the establishment of a commercial station in Port Hedland. [By Steve Wright] [Text] [Perth THE WEST AUSTRALIAN (News of the North) in English 30 Jul 81 p 1]

CSO: 5500/7547

BANGLADESH

BRIEFS

U.N. TO AID REMOTE SENSING--The United Nations Development Programme (UNDP) has approved a project for continued assistance in the field of applied remote sensing technology for Bangladesh, according to a UNDP source in Dacca, reports BSS. The project will assist the Bangladesh Space Research and Remote Sensing Organisation (SPARRSO) in strengthening its scientific and technological capability. This will be accomplished by developing and executing applied remote sensing research programmes and service tasks which are of economic importance to the country. SPARRSO will also receive assistance in expanding its linkage with foreign institutions involved in remote sensing with emphasis on cooperation with the ESCAP region. Training and provision of scientific equipment will form a substantial part of the project. The project will be implemented over a period of three years. the UNDP inputs will comprise of 14 manmonths of advisory services, 40 manmonths of consultancy services, 600,000 dollars for airphoto coverage 680,000 dollars for training abroad, seminars and tymposium and 284,000 dollars for the purchase of equipment for the organisation. The project will be executed on behalf of the UNDP by the Food and Agricultural Organisation (FAO) of the United Nations. [Text] [Dacca THE BANGLADESH OBSERVER in English 20 Jul 81 p 8]

CSO: 5500/7185

NEW PLANT TO MANUFACTURE RURAL EXCHANGE COMPONENTS

Bombay THE TIMES OF INDIA in English 10 Aug 81 p 6

[Article by S. Dharmarajan]

[Text]

PALGHAT.

IN an emerging industrial complex on a forest clearing, not far from the Malampuzha dam of incredible grandeur on the western ghats in this district, engineers have developed a system that could at least meet in part the colossal telecommunications demands of rural India.

The magnitude of the demands is underlined by the absence of telephone facilities in 96 per cent of the country's 576,000 villages. Even according to the sixth plan projections, with the addition of 20.000 long-distance connections, the number of villages with the facilities will go upto only about 37.880.

INDIGENOUS INPUT

Still, sample studies have highlighted the high cost-benefit ratio in providing telephones to the rural community. A telephone could save a crop, prevent the hold-up of harvest, help labour and protect a life. Even otherwise, social and administrative considerations point to the urgency for expansion of the rudimentary rural telecommunications coverage.

These invest considerable relevance to the programme of the Palghat factory (at Kanjikode) of the Indian Telephones Industries set up with substantial indigenous input.

The ITI design of a local-cum-transit switching exchange, initially with nine lines, suitable for rural areas, is based on the latest available technology. The equipment will be ready for field evaluation before April next, preparatory for manufacture and sale to the P and T. The Palghat factory of the public undertaking will be exclusively concerned with the manufacture of electronic switching equipment and the government has approved a massive expansion programme for the factory.

The factory in a short period of existence has already completed the first phase to reach its rated capacity of 10,000 lines of electronic exchanges. It will go upto 60.000 lines in the second phase and 200.000 in the final phase, co-terminous with the current plan period.

Apart from rural digital switching exchanges, the expansion programme finalised by the cabinet, envisages the manufacture of digital trunk automatic exchanges, digital private automatic branch exchanges (PABX) as also equipment for defence services.

Fifty per cent of the cost of the Rs. 16-crore programme will be met from the telecom credit advanced by the World Bank for covering the foreign exchange component.

Utilising advanced concepts, as with rural exchanges, ITI Palghat has designed a PABX with a capacity of upto 1,000 lines suitable for large offices, hotels and conference halls, providing facilities such as call transfer, automatic dialling and the like. Already, ITI has received enquiries from a number of potential users other than the P and T.

Simultaneously, the factory engineers have developed a small electronic exchange of 25 to 50 lines for small offices.

Technology for the trunk exchanges would be secured through foreign collaboration, but for the rest it would be entirely indigenous from the R and D division of the ITI.

Technical collaboration for trunk exchanges would suport product engineering of indigenous designs in converting them into stable and reliable products suitable for bulk manufacture.

Global tenders were invited after the government's approval of technical collaboration. Some of the renowned firms in Belgium, Holland and Japan expressed interest and the evaluation of tenders and the capability of the firms are under study. A team of senior officials has been deputed to these countries. It is expected that the collaboration would be finalised before the end of the year and agreements concluded shortly afterwards.

The engineers are hopeful that the project would reach its full capacity by 1985-86. About 50,000 lines of exchanges will be for rural use.

The project when complete, will provide jobs to about 1,000 high-skilled operatives and executives.

Already, the spin-off effect of this project using highly sophisticated technology is evident. Only trainees who pass out of industrial training institutes are taken as workmen. There has been a rush for admissions in nearby institutes. It will also require quite a number of qualified electronic engineers.

More important is the scope of ancillaries to manufacture small instruments. The Kerala government has already contacted the ITI to ascertain the kind of units that could be set up in the neighbourhood. In addition to the ITI, another public undertaking, Instrumentation Ltd., has set up a unit at Kanjikode which bids fair to be better known as a major centre of the electronic industry than as a small clearing on the way to Malampuzha.

CSO: 5500/7175

BRIEFS

NEW RADAR DEVELOPMENTS--New Delhi, August 12--Hindustan Aeronautics Ltd. (HAL) has developed sophisticated air route surveillance radar and precision approach radar, which were so far being imported by the department of civil aviation, the air force and the navy. The project was initiated and funded by the department of electronics after extensive discussions with user agencies and on the basis of a specific request by the national radar council. The development of these radars will strengthen indigenous capabilities and save foreign exchange. The air route surveillance radar costs Rs 4 crores in the international market. The precision approach radar costs Rs 1.5 crores. The air route surveillance radar has a range of about 400 km. It will be used for air traffic control to ensure safety in the skies. The precision approach radar is a landing aid for the aircraft in poor visibility conditions. The development project was completed in four years. HAL gave a presentation here today on this development in the presence of Dr P. P. Gupta, chairman of the national radar council and the electronics commission. [Text] [Bombay THE TIMES OF INDIA in English 13 Aug 81 p 7]

CSO: 5500/7180

BRIEFS

PALAPA SATELLITE REPLACED--The director general of the post and telecommunications, Suryadi, said in Bandung that the Palapa A-1 satellite, constructed in 1976 and owned by the Indonesian Government, will cease to function in 1983 and has only a 70-percent capacity at present. He said the Palapa A-1 satellite will be replaced before 1983. According to a plan, a Palapa B-1 satellite will be launched in early February 1982 and a Palapa B-2 around May 1983 at a total cost of $150 million. [Text] [BK051035 Jakarta Domestic Service in Indonesian 2300 GMT 5 Sep 81]

TELECOMMUNICATION PROJECTS--According to an official of the Telecommunications Corporation, 71 mini-earth satellite stations, 16,381 telephone lines and other communications projects are currently under construction throughout the nation. [BK101015 Jakarta Domestic Service in Indonesian 1200 GMT 4 Sep 81 BK]

TRANSMITTERS FOR RADIO--During a stopover in Medan on his way back to Jakarta on 3 September, Information Minister Ali Murtopo said that the government had built a 100-kilowatt transmitter to strengthen the national broadcast of the Radio Republic Indonesia--RRI--while two more were to be constructed soon. To strengthen its international broadcast, RRI would have two 250-kilowatt transmitters built in 1982, he said. [BK061145 Jakarta Domestic Service in Indonesian 1200 GMT 3 Sep 81 BK]

CSO: 5500/2304

SATELLITE LAUNCH FOR 1984 DISCUSSED

OW140451 Hong Kong AFP in English 0200 GMT 14 Sep 81

[Text] Beijing, 14 Sep (AFP)--China will launch an experimental geo-stationary telecommunications satellite in 1983 or 1984, a government spokesman said here today.

Questioned on recent statements in Rome by Chinese experts attending an aeronautical congress there, the spokesman said "The launching will not take place very shortly as was stated, but in 1983 or 1984."

Two experts at the Rome congress said the STW-2 satellite would be put into orbit by a "great March 3" rocket similar to the European "Ariane" rocket.

Specialists said that if the launching succeeded, China would become the third world power--after the United States and Europe--capable of putting a high-performance carrier rocket of this type into orbit.

Between 1970 and 1978 China launched eight satellites. Since then Beijing has cut back on its space program because of its economic austerity policy.

The launching of a ninth satellite for summer 1979 has never been mentioned since. However, in May last year, China successfully carried out its first intercontinental ballistic missile (ICBM) tests.

The STW-2 telecommunications satellite should be put into orbit from a launching pad in the northern Gansu Province, and monitored from an observation station at Weinan in the central Shaanxi Province.

According to reports from Rome, the satellite will be placed in orbit at an altitude of 22,121 miles (35,600km).

Specialists said the "great March 3" rocket would be fueled with a liquid hydrogen and oxygen mixture slightly less powerful than the European "Ariane" system. In recent years the Chinese have shown close interest in the "Ariane" rocket.

The Chinese rocket and its satellite, will both be wholly Chinese manufactured.

CSO: 5500/2307

BULGARIA

BRIEFS

NEW RADIO-TV INSTALLATION--Dimitur Trifonov, special RABOTNICHESKO DELO correspondent, reports as follows from the Orelyak Mountain peak in Blagoevgrad Okrug: The area of the Orelyak Peak was previously known only for its particular beauty and for the historical significance of the spot where the Pirin area patriot Yane Sandanski was killed. Today a modern radio-television center is going up here and the first experimental program on Bulgarian television will be broadcast from here tonight. "A powerful and high-quality signal will cover the territory of the Blagoevgrad Okrug and part of Smolyan and Pazardhzik okrugs as well," the engineer Ilya Semerdzhiev, the director of the "radio stations and TV" section attached to the Ministry of Communications, explains. He adds: "The construction workers commissioned this project 16 months ahead of schedule. We now have to use the equipment installed here in an efficient manner so as to be able to transmit high-quality radio and television programs from here." The design of this unique equipment was worked out by experts from the Insproekt Experimental Institute attached to the Telekompleks Scientific Research Enterprise. The work was carried out under extremely difficult weather conditions. The tower is 105 meters high and there is antenna equipment attached to it. The construction was carried out by Sofia Building-Assembling Administration and many highly experienced construction workers and technicians participated in this project that was accomplished within a year. [AU041639 Sofia RABOTNICHESKO DELO in Bulgarian 3 Sep 81 p 1]

CSO: 5500/2304

BRIEFS

NEW TELEVISION TRANSMITTER--Tests of a new television transmitter at Sniezne Kotly in Kar-Konosze have been completed. Equipment is working efficiently. It broadcasts the first television program to the territories of the voivodships in southwestern Poland. The quality of the emission is very good. [Text] [LD030524 Warsaw Domestic Television Service in Polish 1430 GMT 1 Sep 81 LD]

CSO: 5500/2304

BRIEFS

SHORTWAVE TRANSMISSION CENTER--Bijeljina, 9 Sep (TANJUG)--Risto Dzunov, member of the LCY Central Committee and of the SWAPY Federal Conference Presidium, Ismail Bajra, federal secretary of information; and Dr Zoravko Pecar, manager of Radio Yugoslavia, today visited the site of Radio Yugoslavia's new shortwave transmission center near Bijeljina. The new center will have four 500-kw transmitters, making it possible for the station's programs to be heard in all parts of the world. The equipment for the center will be supplied by the Swiss-German firm Brown-Boveri. [LD100402 Belgrade TANJUG Domestic Service in Serbo-Croatian 1312 GMT 9 Sep 81 LD]

CSO: 5500/2304

FIELD EXPERIMENTS IN FIBER OPTICS SECTOR TO BEGIN AT END OF 1981

World Standards Reached

Rio de Janeiro JORNAL DO BRASIL in Portuguese 16 Aug 81 p 3

[Article by Joao Rodolfo do Prado: "Brazilian Optical Fibers Attain World Standards"]

[Text] With advanced, simpler technology and with cheap raw materials (which are abundant and of which Brazil has inexhaustible and extremely high-grade reserves), it is possible to make a glass thread which can begin to play a crucial role in telecommunications. This is of special importance to underdeveloped countries where telephone systems have not yet been completely installed.

In summary, the optical fiber is one of the most modern technologies. In the race for its development, Brazil is in the front rank; a few weeks ago, the TELEBRAS [Brazilian Telecommunications, Inc] laboratory attained international specifications, in accordance with its timetable, so that field experiments can begin at the end of the year with the installation of a link between Jacarepagua and Cidade de Deus in the CETEL [Guanabara State Telephone Company] telephone system.

The development of optical fibers in Brazil was described enthusiastically by engineer Jose Mauro Leal Costa, the 32-year-old PhD, who is in charge of the Optical Fibers Groups, one of the units of the TELEBRAS Research and Development Center in Campinas. So far, 270 million cruzeiros have been spent over a period of 6 years in an effort which today employs over 50 persons. The group is set up in a well-equipped but rather Spartan shop on the outskirts of the city.

According to Engineer Jose Mauro, the project's success is a direct result of the decision made by TELEBRAS to invest in optical fibers at the right moment, that is, in 1975, during the First European Optical Fiber Communications Congress. The first fiber for telecommunications was produced by Corning Glass Works (United States) in 1970, followed by a speed up in research during the following years. Today there are two major systems in operation--Buenos Aires and Hongkong --which use Japanese optical fibers.

First of all, TELEBRAS financed a project in the Physics Institute of UNICAMP [Campinas State University] for the development of optical fiber manufacturing technology; out of the six professors, only Jose Mauro was a Brazilian. During the following two years, equipment was purchased, the laboratory was set up, and technicians were trained. In 1978, the work was divided for greater efficiency and better handling of project characteristics.

The UNICAMP group concentrated on academic activities aimed essentially at personnel training (today, eight students are taking postgraduate training). TELEBRAS established the Optical Fibers Group specifically to take care of the technology, today employing 20 former students of UNICAMP. These activities are complementary and it is admitted in TELEBRAS that basic research having to do with optical fibers will be financed in the future.

The laboratory is now getting ready to produce the 60 kilometers which will be required for the CETEL link which is already using an optical fiber system of NEC Bento Ribeiro and Colegio (the Rio enterprise has announced that it received the system in January 1979, free of charge, with 2 years to decide on purchase, a decision which is still pending).

In telecommunications we use a fiber of the multimodal, gradual-index type (see insert [not included]) which could be transferred to private industry by the end of 1972. But other, simpler products were discovered in the course of the development of this fiber, such as the one of the multimodal, step-by-step index (involving silica, silicon, and fluorpolymer), transferred to industry after approval of samples in laboratories abroad.

These fibers are installed, for example, in monitoring circuit breakers in substations of the Sao Paulo Power and Light Company. An effort was made to equip the systems at Itaipu but the enterprise responsible for assembly, a Swedish outfit, preferred to use foreign fibers. The step-by-step index type fibers were transferred to X-tal, an enterprise in Rio de Janeiro.

The demand for optical fibers by electrical power companies is very great. Here is why: a power plant contains a series of remote-controlled equipment items; since the electromagnetic field is very intense, the wiring of these systems must be heavily armored and this is very expensive. But it so happens that optical fibers, since they are made of glass, are immune to electromagnetism. This eliminates the need for sheathing and results in a ten-fold cost reduction in the wiring.

This property is one of the big advantages of optical fibers, a material which is being used increasingly in passive systems which are exposed to electromagnetic interference, such as in the modern instrument panels of combat aircraft. Since the capacity of light to conduct information is unlimited--within current technological parameters--there is a guaranteed future for this in telephone systems and computers (where machines are on the decline while conventional coaxial cables are on the increase).

In summary, optical fibers are being used in a large number of fields, from medicine to cable TV, via computers (link between units), vehicles, military equipment, and primarily telecommunications. There are even rather prosaic uses to be found in everyday life.

One example is the lighting on the Chevette dashboard where optical fibers carry light to a lamp that illuminates the ventilation system indicators and the cigarette lighter. Another one is a decorative object: hundreds of wires come out of a metal base (in which a lamp is concealed) and the points of those wires are illuminated and form a kind of fountain.

The fiber developed by TELEBRAS consists of a larger system also including the Laser Project (under development since 1973, with preparations now being made for the creation of a pilot production assembly line, the indium phosphate laser recently developed, another innovation on an international scale) and the Elo 34 Project (equipment which will provide the interface or connection between the telephone system and the optical fiber).

In broad outline, the system works as follows: the telephone signals (digital in pulse form) are transformed from electric signals into light signals through the activation of lasers (they flash 1 billion times per second, in the IR range). The equipment being developed by TELEBRAS can take care of 480 subscribers with 1 pair of fibers. The fact is that the fiber can receive information for hundreds of thousands of subscribers provided we have electronic equipment capable of transmitting and receiving the light signals (this is why it is said that the cables to be installed will have a lifetime of scores of years).

It must be noted that it is not possible to tap an optical fiber because it only permits direct point-to-point communication. The only possibility of interfering in communication would be to cut the cable and the make a patch, which would make the original link useless.

According to Engineer Jose Mauro, the group already has a mastery of the technology involved in the production of the multimodal fiber and will begin research on the monomodal fiber, by which time it will have caught up to the level of the other countries, something which should happen next year. As for technology transfer to private initiative (the Condugel, Condulli, and Brasel enterprises are involved in the project, developing cables for covering the fibers), he noted that everything will depend on the determination of an overall policy for national production.

Revolutionary Fiber Exhibited

Rio de Janeiro O GLOBO in Portuguese 21 Aug 81 p 5

[Text] Sao Paulo (O GLOBO)--A fiber with a diameter a little larger than a human hair, by means of which it is possible to transmit sound waves in a conversation, images from a TV transmitter, and computer data--that is the product which Hiroshi Murata, chief, Furukawa Electric Company Research Center, yesterday presented to a gathering of 150 engineers from the principal Brazilian telecommunications enterprises in the auditorium of TELESP.

The fiber, made with extremely cheap material--quartz--weighs only one-tenth and has a thickness of one-one hundredth of the expensive copper wires in conventional telecommunications systems. It is the result of a research effort launched in 1966 in China and developed in Japan and the United States. Its basic characteristic is represented by the fact that it can be used as a kind of tube in which laser rays can be confined. In Japan NTTPC, the biggest telecommunications company, is already using 3,300 kilometers of this fiber. Last year, Hongkong ordered another 3,000 kilometers from Furukawa.

Hiroshi Murata--considered the top Japanese authority on this type of fiber--came to Brazil in response to an invitation from TELEBRAS. Today, he will speak at the TELEBRAS training center in Campinas and on 24 August he will speak at 1500 in the TELERJ auditorium. The scientist--who, on 14 August, delivered a lecture in the International Scientific Radio Union in Washington--has scheduled other lectures at the National Technology University of Helsinki and at the National University of Denmark after his commitments in Brazil.

Other Applications

The engineers, who yesterday listened to the Japanese scientist, included representatives from EMBRATEL [Brazilian Telecommunications Company], ELECTROBRAS [Brazilian Electric Power Companies, Inc], FURNAS Mills, ELETROPAULO, TELERJ, TELESC of Santa Catarina, TELPA of Pernambuco, TELEGOIAS, TELEMAT of Mato Grosso, and CTBC of Borda do Campo.

In his lecture, which was entitled "Optical Fiber Systems," he showed slides on the equipment necessary for fiber utilization. His interpreter, Engineer Foad Shaikhzadeh, who accompanied him during his stay in Brazil, is in charge of the telephone cable division, Quality Control Department, Furukawa, Brazil. He said that, as an additional advantage, the use of fibers--also produced in Japan, by Toshiba, Mitsubishi, Nippon, Olympus, and others--permits a greater overload of telephone calls. Simultaneously, 5,000 persons can talk via a single pair of fibers. In addition to the use of optical fibers in commercial telecommunications, other uses have been made of optical fibers in Japan, such as in military installations, due to the ease with which they can be put to use, and in medicine, by virtue of the possibility of easily introducing them into the human body and thus neutralizing cancer cells with IR rays.

5058
CSO:5500/2294

BRIEFS

DIRECT DIALING SYSTEM--A few minutes ago Vice President Leon Roldos inaugurated a new direct dialing system between Ecuador and all the countries of Europe and America. [PA130421 Quito Voz de Los Andes in Spanish 1730 GMT 9 Jul 81]

ECUADOR JOINS BANKING NETWORK--At 0830 on 7 September, Ecuador will join the world banking association network for financial telecommunications, through which the Central Bank of Ecuador and 12 other national banks will communicate through computers with more than 800 banks throughout the world. [PA310354 Quito Voz de Los Andes in Spanish 1230 GMT 26 Aug 81]

CSO: 5500/2303

GOVERNMENT TO EXPAND BROADCASTING FACILITIES

FL081649 Kingston DAILY GLEANER in English 1 Sep 81 pp 1, 12

[Excerpts] Prime Minister Edward Seaga said yesterday that the government has taken a policy decision to maximize development of its broadcasting facilities at the Jamaica Broadcasting Corporation.

In order to do so the government proposes to complete the broadcasting transmission network to cover the island in both radio and television and part of which will involve expansion in the network by the development of regional substations in radio to give more local meaning to the programming, depth and reach of radio in particular regions of the island.

The prime minister was speaking at the opening session of the four-day Caribbean Broadcasting Union's 12th annual meeting at the new Kingston Hotel, Knutsford Boulevard. The conference is being attended by delegates from 20 member broadcasting systems in the English speaking Caribbean, Curacao and Suriname, as well as observers from the Canadian Broadcasting Corporation, the Commonwealth Broadcasting Unit, the International Broadcasting School which is based in London and the Caribbean Institute of Mass Communications.

Cohosts of the conference are Radio Jamaica, Ltd., and the Jamaica Broadcasting Corporation. The conference is examining developments in broadcasting in the Caribbean and closer cooperation in production and distribution of radio and television programs.

Prime Minister Seaga gave the keynote address at the opening session after being introduced by Radio Jamaica's Program Director Winston Ridgard. The vote of thanks was moved by JBC's Acting General Manager Newton James.

Mr Seaga said that the developing world missed the first round of mass communications development, and for the large part were oral societies and were not therefore active in the development of the written word, publishing and mass communications that arose from the written word. The developing world missed the technology that went into video and audio in the development of the film industry.

Vital Functions

Mass communication serves very vital functions, he said listing: Explanation of government policies and programs (public education); development of informed public opinion vital to the democratic process; transfer of technology through training and wide cultural exposure.

"For these reasons, the government has taken the policy decision to maximize the development of its broadcasting facilities at the Jamaica Broadcasting Corporation," he said.

"To do so, we proposed to complete the broadcasting transmission network to cover the island in both radio and video. A part of this process will be the expansion of the network by the development of regional substations in radio, to give more local meaning to the programming and the depth and reach of radio in particular regions of the island.

"In addition to this, the expansion of video transmission is intended to reach into areas which are now not being covered, in fact not being even covered by radio transmission.

"The second part of this decision is to convert transmission from black and white to color in television. Not to the detriment of reception in black and white, but to the enhancement of color reception.

"And, thirdly, to expand television transmission to two channels at the beginning and more at a later stage. Finally, to use the second channel for public information, public education, cultural programs and sports."

Mr Seaga said that the first channel in television will continue to provide entertainment and on a wider basis through the utilization of programs derived from satellite transmission. This will be further expanded to transmission in hotel rooms for the benefit of visitors. The proceeds from the first channel in advertising and other revenues will go by way of surpluses to pay for activities of the second channel.

Second Channel

"It is the second channel, of course, which is the crux to the development strategy of which I have spoken. For it will attempt to provide opportunities for training both in formal and informal education, beamed to schools, beamed to target audiences, attempting to transmit skills and technology by means of the visual process.

"The second channel will feature documentaries on the Caribbean, on Jamaica and on the wider world for which there is little room to be found in the first channel which is devoted to entertainment opportunities at present and will continue to do so.

"By virtue of expanding cultural programs, to expand the public awareness of cultural activity and the interaction of cultural expression and talent in the creation of these programs, to expand government policies and programs so that the community at large, and not just the urban sectors, will have the benefit of full awareness of public funds."

Mr Seaga said that at the base of the government's strategy is to rely on private initiative and enterprise in the development of programs. He said that it was not intended that the public corporation will itself undertake widescale programs and the development of various types of talent and activity in that area.

CSO: 3025/1029

TELEPHONE NETWORK BEING EXPANDED IN TEHRAN, TOWNSHIPS

Tehran KEYHAN in Persian 3 Sep 81 p 13

[Interview with Managing Director Mohammad Va'ezi of the communications company]

[Text] In an interview with the Central News Unit, Director Va'ezi gave the following explanations about electronic communication centers in Tehran:

Regarding the number of these centers and new centers beginning operation, he stated: "It is our policy that more attention should be given to the townships, especially those that have been without them for a long time. However, there have been 11 telephone centers in Tehran for a long time, but approximately 50 percent or 60 percent of the work on them, especially installation of the instruments, has been completed; and it only remains to put them into operation. After the revolution and the expulsion of the Americans, Iranian speicalists succeeded, by working assiduously night and day, in putting a large number of these instruments into service; and right now the operation of the Hafez Center is ensured with 5,000 telephone numbers and the Tajrish and Zafar centers, each of which has a capacity of 10,000 numbers and have begun extending lines to subscribers in these areas. And the second phase which will begin service in March 1982 includes centers in Gandhi, Kazaneh, 'Abbasi, and Tehran-e Now--each of which will begin operations with a capacity of 10,000 numbers. Of course, a new survey is also necessary to coordinate our policy of further expansion in the townships."

He added: "The trouble encountered right now is the shortage of cable in the country; and in most of the townships where we are installing telephones for subscribers, our work has remained unfinished due to this shortage of cable. And the cables which have been purchased have not been delivered to us on time due to the economic boycott, but they are enroute and with whatever arrives we will give priority to the townships and then continue work in Tehran."

In reply to the question that in addition to Tehran what other areas are now using these facilities, he said that Shahr-e Kord, Sirjan, Borjnurd, Miando'ab and other small towns are at present working at 50 percent capacity; and when the difficulties have been overcome these townships will continue operation at 100 percent capacity.

Regarding the differences of these telephones with the telephones on hand, he said: "The difference is in their method of operation, to the effect that when we pick up the receiver no sound is heard from it; and another thing is that it take 15 seconds to establish connection. Another difference is that both sides can cut off the connection." He added: "Fortunately, with the sincere cooperation of Iranian experts, this kind of telephone has been connected with outside lines in the townships. Also, attention should be given to the fact that the particular code and number must be dialed immediately, after which there is a 15-second wait." In conclusion he pointed out: "Special services have been considered for these telephones, which we will report on later."

CSO: 5500/5517

NEW TELEPHONE LINES TO BE INSTALLED

Kuwait KUWAIT TIMES in English 21 Aug 81 p 2

[Text] The new telephone exchange to be installed in Ras Salmiyah will provide the area with a total of 20,000 new lines, according to Communications Ministry Engineer Khaled Al Owisher.

Another new exchange to be built in Nwiseeb will provide the area with 600 lines, he said.

The two exchanges will bring the total to 13 with a total capacity of 119,200 lines of which 75,261 are in operation.

In Farwaniah, a total of 6,000 new lines will be installed, said the district's engineer Ali Showaish Al Lamee.

Vast Area

In all, a total of 33,400 new lines will be installed under a contract signed by the Ministry.

Farwaniyah Exchange which covers a vast area is at present operating on 22,000 lines said Al Lamee. "Most of our problems come from the contractors who were very careless in laying the telephone cables," said Al Lamee. Despite their faults fines of only KD 5 for each damaged cable is being levied.

People wanting a telephone, after submitting the application for new connection demanded instant installation, without being aware that the technical procedures take time, Al Lamee said.

Meanwhile, the head of the complaint section at the exchange, Dakhil Abdul Rehman said that nearly 100 complaints were being made daily and each defect took about two to three days to be rectified. If the defect was inside the exchange, he said, it could be repaired within 10 minutes.

The Fahaheel exchange has a capacity of 15,000 lines but only 9,498 lines are in operation with 5,000 lines to be installed.

Fintas has capacity for 5,000 lines but only 2,516 lines are being used.

Al Ahmadi's capacity is for 6,000 lines but only 4,200 lines are in operation. Shuaiba with a capacity of 3,000 lines is running on 1,207. In Soor, only 99 lines out of a possible 600 are being used. Another 1,400 is to be installed. Riggae with capacity for 10,000 lines, is using only 2,842. Wafra is using only 87 of its 600 lines while Mishrif is using only 1,215 of its 10,000 lines.

CSO: 5500/4731

BRIGHT FUTURE SEEN FOR CONTINENT-WIDE BROADCASTS

Libreville L'UNION in French 12 Aug 81 p 4

/Article by AFPB: "Africavision: First Continent-Wide Broadcast"/

/Text/ Next 15 August, Gabon will produce the first television broadcast to be carried throughout the continent. This broadcast, "Africavision," which will take place at the 12 March International Conference Hall at 1730 hours, will be relayed by satellite. It involves a variety competition of which the object is to encourage production of high-quality original popular songs, by creating a spirit of emulation among lyricists and composers through international comparison of their works.

This big variety broadcast will be produced by Gabonese Radio and Television (RTG). In this connection, we had a meeting with the director general of RTG, Jacques Adiahenot. According to Mr Adiahenot, the Africavision broadcast will be an opportunity to make a start on the cooperation in radio and television concerns so much desired by information officials in Africa.

It is with the support of the minister of information, and in particular that of the president of the republic -- who encourages anything contributing to human cultural development -- that Gabonese Radio and Television is organizing the first big variety broadcast ever to take place on our continent. Over 26 African artists and groups of international fame will take part in it, including Myriam Makeba, Manu Dibango, Ossibissa, and Pierre-Claver Zeng, to mention only a few.

American Interest in Venture

The broadcast will be directly relayed to all African countries possessing a ground station, as well as by certain European television companies. We note that at the moment an American television network is interested in this unprecedented event. This is an opportunity for our country, which has equipped itself with modern communication and telecommunication infrastructure (Nkoltang satellite antenna), to use it for a transmission. RTG is providing everything that is needed for production of this broadcast. All the skilled personnel have been called in, but in some jobs recourse will have to be had to foreign technicians who have had thorough experience in this field.

It is therefore more or less certain that after Africavision, other broadcasts of this sort will follow, under the auspices of URTNA (Union of African National Radio and Television Broadcasting Companies), or will be taken over by African radio and televsion broadcasting companies.

In conclusion, the director general of RTG made a point of stressing the support and assistance given by National Air Gabon Company and the Dialogue Hotel in Libreville, which unhesitatingly sponsored the broadcast. He also made a point of specially thanking, on behalf of RTG, these two companies, which through their involvement are considerably lowering the cost of this operation.

12149
CSO: 5500/5069

GUINEA-BISSAU

BRIEFS

NEW TELEPHONE INSTALLATION--A team of technicians from the post and telecommunications office is in Farim to install a new telephone network. The new telephone plant, which is similar to those installed in the various regional capitals, notably Bafata, Bolama, Catio and Cantchungo, will solve a serious problem affecting the Oio region by facilitating better connections with the country's other regions and with Bissau. [Text] [Bissau NO PINTCHA in Portuguese 26 Aug 81 p 2]

CSO: 5500/5073

MALFUNCTIONING OF TELEPHONE LINES DEPLORED

Maputo NOTICIAS in Portuguese 31 Aug 81 p 2

[Excerpts] The telephone network in the nation's capital is still affected by serious problems. The repercussions of this situation, which affects also inter-provincial and even international communications are known to all.

In general, the main problem in telephone communications is the poor maintenance of the equipment, most of which is quite old.

Deficiencies in the Maputo telephone network can be explained as well by the lack of spare parts or even by the limited technical knowledge of some of the workers.

Thus the constant breakdowns can be the result of fundamental problems or of the lack of repairs in cases of petty damage.

The most telling example of this lack of concern is the fact that cables are down in various telephone booths around the city. Weeks go by and nothing is done. On Avenida N'krumah, telephone cables that have fallen on the ground cover two whole blocks. In such cases, obviously, the malfunctioning of the telephones cannot be explained by fundamental reasons, but is due to indifference and lack of efficiency.

This situation is common in various points of the city. As a result, hundreds of consumers experience difficulties of various kinds.

True, the lack of spare parts prevents good maintenance of the telephone network; nevertheless, certain difficulties have nothing to do with such lack. When telephone cables are left on the ground throughout the city, the situation is not related to the availability of non-availability of spare parts. This lack is often invoked as an excuse for indifference and carelessness.

The efficiency in telephone communications that is demanded in a large city like Maputo is not compatible with certain justifications that are, to say the least, inconsistent. That some consumers experience difficulties because damage to their telephone derives from a problem that supersedes the capability of the sector is some plausible or justifiable. But when the damage comes from the fact that cables are left to sweep the ground and that some (ir)responsible person has not carried out his duties properly, this is both implausible and unjustifiable.

CSO: 5500/5074

BRIEFS

TV STATION CONTRACT--The Kano State Government has initialled a 5.5 million naira contract for the establishment of a television station. The commissioner for home affairs and information, Alhaji Mahmud Othman, said the television station will publicize government activities in the state. [Text] [AB140904 Lagos Domestic Service in English 0600 GMT 14 Sep 81]

CSO: 5500/2307

FRANCE

BRIEFS

ARIANE TELECOMMUNICATIONS LAUNCH DELAYED--Paris, 11 Sep (AFP)--Technical difficulties will delay the fourth launching of the European Ariane rocket from mid-November probably until early December, informed sources said today. Specialists were not yet able to specify the launching date from the space center of Kourou, French Guiana. Several months of problems have already been reported in trying to iron out difficulties with the one-ton maritime telecommunications satellite "Marecs" that Ariane was to launch was to launch into space. The latest delay results from its continued malfunctioning in ground tests, the report said. Reports said there were no problems with the functioning of the rocket itself, which will be shipped to French Guiana as planned at the end of September. Two successful Ariane launches have already been made in December 1979 and on June 19. The fifth Ariane launching, which will involve the European telecommunications satellite "ECS-1," planned for April or May 1982. [Text] [NC112000 Paris AFP in English 1929 GMT 11 Sep 81]

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